

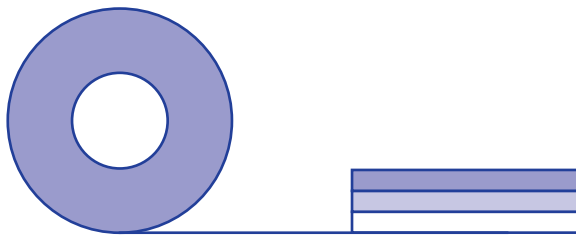
Product: **LASERGUARD™ 3100H5 BLUE**

Product group: **Surface Protection Tapes**

## General description

Nitto LASERGUARD™ 3100H5 BLUE is a surface protection tape, which protects metal surfaces during laser cutting processes. The unique concept of a special, printed blended PE carrier, combined with a special release layer and modified rubber-based adhesive, makes your cutting processes shorter and more efficient and will result in higher added value end-products.

## Construction



- Pressure sensitive rubber-based adhesive
- White PE-film, printed with arrows, lines and the Nitto brand name in blue
- Special wax release coating

## Characteristics

The rubber-based adhesive is pressure-sensitive and has the excellent adhesive qualities required for laser cutting processes after automatic lamination. The tape has enough oil resistance and therefore is usable to protect metals after milling operations.

The absence of carbon black avoids discoloration and burrs on the cutting edge, reducing cleaning and polishing operations after the cutting process.

The special wax release coating of LASERGUARD™ 3100H5 BLUE has low unwind properties during lamination which ensures improved laser cutting yield and less production shut-downs (no bubble-forming).

Printed arrows and lines allow you to install your brushed or polished metal in the appropriate direction after the laser cutting process. This will enable you to protect your metal till the end of the supply chain, resulting in an optimum protection from scratches, impurities, etc.

## Application

LASERGUARD™ 3100H5 BLUE is a surface protection tape that protects metal surfaces during CO<sub>2</sub>, N<sub>2</sub> or O<sub>2</sub> laser cutting processes. The combination of printed white PE carrier with a very high adhesion, rubber-based adhesive and a special wax release layer makes it the ideal protective tape for laser cutting processes.



## Features

- laser cutting of stainless steel above 2 mm
- no pre-cutting required
- no bubble-forming
- functional print
- low unwind during lamination
- very high adhesion
- recyclable
- film with high mechanical strength

## Properties

	Average Value	Test Method
Film type	PE film	
Adhesive type	Rubber-based	
Total thickness	105 µm	EN 1942
Adhesion on BA steel	300 cN/20 mm	EN 1939
Weatherability on BA steel*	50 h	ISO 4892-2
Tensile strength MD**	min. 23 N/20 mm	EN 14410
Elongation MD	min. 150%	EN 14410
Colour	White with blue printed arrows, lines, Nitto	
Transport and storage conditions	Temperature 15 to 30 °C	
	Relative humidity 40 to 75% RH	

\* The weatherability is measured on BA steel. Depending on the substrate the weatherability performance can be different.

\*\* MD = Machine Direction

Details from the test methods are described on the customer product specification.

CAUTION: The above are typical values and should not be used in writing specifications.

## Warranty

The product is guaranteed to be free from defect in material and workmanship at the time of delivery and will be suitable for use for a period of 6 months thereafter, subject to the conditions set out herein.

## Availability

Widths: 1000 mm, 1250 mm, 1500 mm

Lengths: 500 m

Please contact us for specific dimensions

## Lamination guidelines

- The tape should be applied to clean and dry surface by automatic mechanical means.
- In order to avoid entrapped air-bubbles, excessive tension and shear, the customer should determine appropriate lamination conditions in his process. In case of lamination on a 'coil to coil line', special attention is necessary to avoid wax release damage by mechanical friction.
- The best lamination conditions are obtained at a temperature between 15 °C and 40 °C.

## Application guidelines

- In order to reach the ideal adhesion level for laser cutting, it is advisable to wait 1 week after lamination.
- To avoid bubble-forming, the customer should determine appropriate laser cutting conditions.
- It is not advisable to use LASERGUARD™ on substrates which contains copper.
- This surface protection tape could contain fish eyes and gels. It is not recommended to use this tape for heavy forming processes due to the risk for visual imprints on the substrate.
- LASERGUARD™ cannot be used for outside exposure.
- Surface protection tapes are not meant for permanent protection, they should be removed at the end of the supply chain.

If you require additional information on technical properties and application as well as product sampling or testing, please contact your local Nitto sales office.

## General conditions of use and precautions:

The properties of the product might be adversely affected by various elements such as composition, condition and surface of and impurities in or on the substrate, temperature and humidity during storage, the surrounding environment at and after application and time of exterior use. When the product is used in combination with another material or process, the user shall assure the compatibility of the product in such combination and whether this combination results in the expected performance. The same principle applies in the event of product use in extreme conditions or circumstances, whether at or after the moment of application, including extended exposure to sunlight or extreme temperatures and pressure.

## Packaging, transport and storage:

During transport and storage the product should always be protected against direct sunlight and extremes in temperature and humidity and contained in its original packaging. Once removed from its packaging, it should be promptly applied and remain shielded from direct sunlight and extreme temperature as well as protected against dust and other impurities.

## Liability:

Except for its wilful misconduct, Nitto Belgium's liability shall be limited to a replacement, a reimbursement or an additional delivery of the product, and shall not exceed the purchase price of the products. In no event shall Nitto be liable in respect of any indirect or consequential damages, including loss of profits.

The above limitations of liability shall equally apply if Nitto Belgium has assisted in any manner with the selection, treatment or application of the product.

## Product information:

This datasheet provides a general description of the product properties and application scope. Full technical details in connection with this product are presented in the customer product specification, which is available upon request.

The information reflected in this datasheet is subject to change and the product described herein may be modified or discontinued without notice.

Edition: January 2019

Code: DS/12.07/A3 Laserguard 3100H5 ENG

This datasheet replaces all previous versions

Nitto Belgium NV has obtained following certificates:

- ISO 9001
  - ISO 14001
  - IATF 16949
- Please check our website for applicable scope



For your local Nitto sales office, please visit our web site:

[www.nitto.com](http://www.nitto.com)

Copyright © 2019 NITTO BELGIUM NV. All rights reserved.